

Note on the Feeding Habits of the Giant White Marlin of the Pacific¹

On June 22, 1950, an 851-pound white or silver marlin, *Makaira marlina* (Jordan and Hill), was brought into the Kyodo Fishing Co., Ltd., at Honolulu as part of the commercial catch of the long-line fishing boat "Monarch." The specimen had been cut in two about midway between the operculum and the caudal fin as is common practice aboard local long-line vessels to facilitate stowage of large fish. It was noted in this particular specimen, however, that the stomach and part of the large intestine had been torn appreciably, leaving a sizable gap in the abdominal cavity. According to information given by Shigeo Yamaguchi, captain of the fishing boat, the marlin was caught on one of the long lines, at a depth of about 60 fathoms, during fishing operations off Hana, Maui. When the fish was brought aboard it was observed that the abdomen was abnormally swollen, and upon cutting the fish for stowage, a big-eyed tuna (*Parathunnus sibi*) was found lodged in the stomach. The tuna had been caught on the long line first, for the hook still was set in the tuna's mouth when the specimen was removed from the

stomach of the marlin. The marlin evidently had found the hooked tuna an easy prey and swallowed it head-first. It appears that the latter is a common feeding practice of the large spearfishes as noted by Nakamura (*Science of the Seas* [Kaiyo no Kagaku] 3(10), October, 1943). The tuna was removed from the stomach, and, since little digestive action had taken place, it was stowed as part of the catch.

When brought into the market, the tuna was found to weigh 158 pounds, although the anterior portion of the head was missing, having been cut off when the marlin was sectioned. It measured 1373 mm. in length from the posterior margin of the orbit to the cartilaginous part of the median caudal rays. From the two pieces of the marlin, an approximate length of 2994 mm. was obtained, as measured from the naris anteriorly to the median rays of the caudal fin posteriorly.

Although it has been previously noted (Nakamura, *op. cit.*) that the giant spearfishes can easily swallow adult skipjack, this is believed to be the largest single food item recorded for this group of fishes.—Fred C. June, *Pacific Oceanic Fishery Investigations*, U. S. Fish and Wildlife Service, Honolulu, Hawaii.

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